

CLAIMS:

What is claimed is:

1 1. A method for writing data in a tape drive, the
2 method comprising:

3 allocating a blank area for transpose writing on a
4 magnetic tape;

5 writing a first plurality of data sets on the
6 magnetic tape adjacent to the blank area, wherein the
7 tape drive maintains full operating speed during
8 intervals between writing successive data sets, resulting
9 in spaces between the data sets; and

10 repositioning the tape at a specified interval and
11 writing a transposed data block to the allocated blank
12 area, wherein the transposed data block contains the same
13 content as the first plurality of data sets.

1 2. The method according to claim 1, further comprising
2 allocating a second blank area for transpose writing
3 adjacent to the transposed data block, wherein allocating
4 the second blank area may include erasing a portion of
5 the first plurality of data sets.

1 3. The method according to claim 1, wherein the data
2 written to both the first plurality of data sets and the
3 transposed data block is stored in a data buffer.

1 4. The method according to claim 3, wherein the size of
2 the blank area allocated for transpose writing is

3 determined by the size of the data buffer and a specified
4 data transfer rate.

1 5. A tape drive, comprising:
2 a means for allocating a blank area for transpose
3 writing on a magnetic tape;
4 a write head for writing a first plurality of data
5 sets on the magnetic tape adjacent to the blank area,
6 wherein the tape drive maintains full operating speed
7 during intervals between writing successive data sets,
8 resulting in spaces between the data sets; and
9 a means for repositioning the tape at a specified
10 interval and writing a transposed data block to the
11 allocated blank area, wherein the transposed data block
12 contains the same content as the first plurality of data
13 sets.

1 6. The tape drive according to claim 5, further
2 comprising a means for allocating a second blank area for
3 transpose writing adjacent to the transposed data block,
4 wherein allocating the second blank area may include
5 erasing a portion of the first plurality of data sets.

1 7. The tape drive according to claim 5, wherein the
2 data written to both the first plurality of data sets and
3 the transposed data block is stored in a data buffer.

1 8. The tape drive according to claim 7, wherein the
2 size of the blank area allocated for transpose writing is

3 determined by the size of the data buffer and a specified
4 data transfer rate.

1 9. A computer program product in a computer readable
2 medium for writing data in a tape drive, the computer
3 program product comprising:

4 first instructions for allocating a blank area for
5 transpose writing on a magnetic tape;

6 second instructions for writing a first plurality of
7 data sets on the magnetic tape adjacent to the blank
8 area, wherein the tape drive maintains full operating
9 speed during intervals between writing successive data
10 sets, resulting in spaces between the data sets; and

11 third instructions for repositioning the tape at a
12 specified interval and writing a transposed data block to
13 the allocated blank area, wherein the transposed data
14 block contains the same content as the first plurality of
15 data sets.

1 10. The computer program product according to claim 9,
2 further comprising fourth instructions for allocating a
3 second blank area for transpose writing adjacent to the
4 transposed data block, wherein allocating the second
5 blank area may include erasing a portion of the first
6 plurality of data sets.

1 11. The computer program product according to claim 9,
2 wherein the data written to both the first plurality of
3 data sets and the transposed data block is stored in a
4 data buffer.

1 12. The computer program product according to claim 11,
2 wherein the size of the blank area allocated for
3 transpose writing is determined by the size of the data
4 buffer and a specified data transfer rate.